

I claim:

1. A self-leveling and balancing vehicle comprising:

a moving and driving mechanism including two longitudinal moving seats formed at its two sides, a connecting frame extending to connect said longitudinal
5 moving seats and two sector gears installed on said two longitudinal moving seats respectively;

a driving motor fixed under the top of said connecting frame, the driving motor having a driving shaft extending to said two sector gears;

a level sensor installed on said connecting frame;

10 two level driving gears being installed on two ends of said driving shaft and engaged with said two sector gears;

a balance driving gear box being installed on said driving shaft, the balance driving gear box having an output shaft extending to locate at said connecting frame and can be rotated freely, two driven gears being installed on two ends of
15 said output shaft;

a base including two guiding rails or guiding grooves paralleled with moving direction of the vehicle, said longitudinal moving seats can be mounted on the two guiding rails or guiding grooves respectively, further two racks being fixed between and paralleled with the two guiding rails or guiding grooves, the
20 driven gears on said output shaft being engaged with the two racks;

once the vehicle running up or down a slope, the level sensor can start the driving motor automatically to drive the driving shaft to make the level driving gears can be rotated along the sector gears to adjust the chair or carry platform on the connecting frame to level position, meanwhile, the two driven gears installed

on the output shaft of the driving gear box can be rotated reversely with the driving shaft and moved forward or backward along the racks to make the moving and driving mechanism move simultaneously along the guiding rails to balance position.

5 2. A self-leveling and balancing vehicle as claimed in claim 1, wherein each longitudinal moving seat have a sliding groove or a sliding rail which can be mounted respectively on the guiding rails or guiding groove on the base.

3. A self-leveling and balancing vehicle as claimed in claim 2, wherein the sliding grooves or rails mounted on the guiding rails or grooves can be a dovetail
10 joint.

4. A self-leveling and balancing vehicle as claimed in claim 1, wherein the balance driving gear box have a driving gear, two medium gears and a driven gear engaged with each other, the driving gear being installed on the driving shaft of driving motor and the driven gear being installed on the output shaft.

15 5. A self-leveling and balancing vehicle as claimed in claim 1, wherein the top of the connecting frame have a chair or platform.

6. A self-leveling and balancing vehicle as claim in claim 1, wherein the connecting frame is formed into a triangular supporting shape, the lower part of two sides of said connecting frame having a first locating hole respectively, two
20 ends of the output shaft of the balance driving gear box can be installed in the first locating holes and rotated freely, the upper part of two sides of said connecting frame having a second locating hole respectively aligned with said first locating hole, two ends of the driving shaft of the driving motor can be installed in the second holes and rotated freely.

7. A self-leveling and balancing vehicle as claimed in claim 1, wherein the base have a top plate, a bottom plate and three supporting post installed between the top plate and said bottom plate, top end of each said supporting post being pivoted on the top plate and the bottom end being fixed on the bottom plate, each
5 supporting post being equipped with a compression spring.